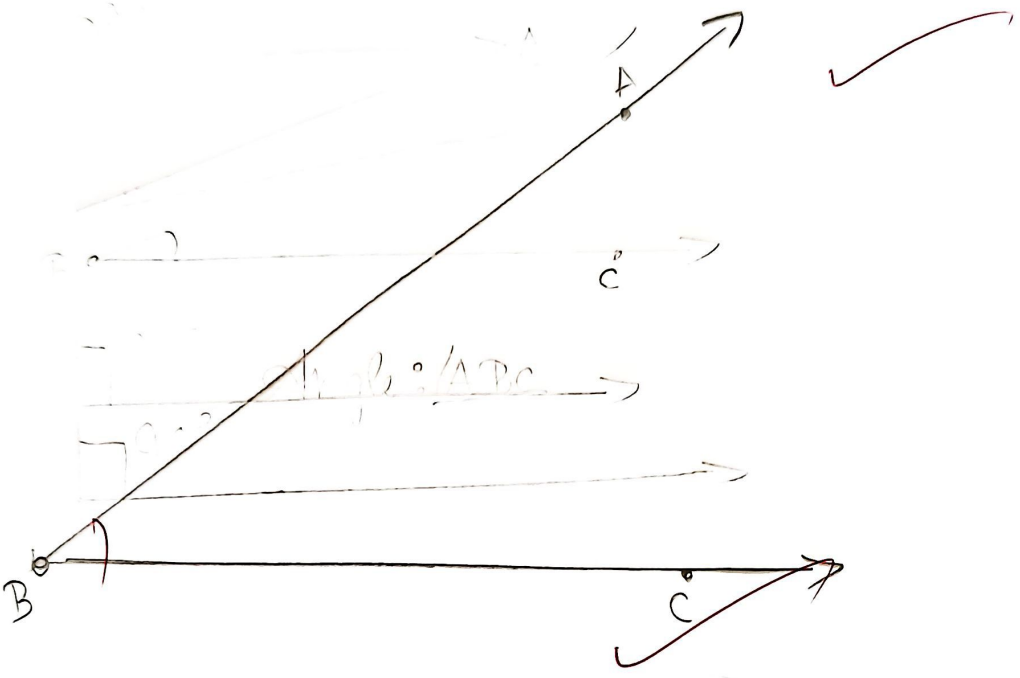
Chapter-2
Lines and Angles

Angles:-

When two rays meet at a common starting point they form a figure called an Angle.

The common point = Vertex
The rays = Arms: $\overrightarrow{BA}$, $\overrightarrow{BC}$



Angle: $\angle ABC$.

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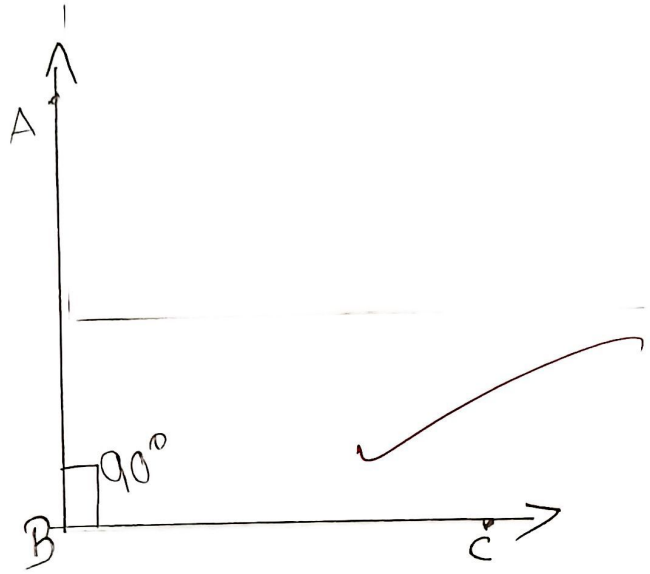
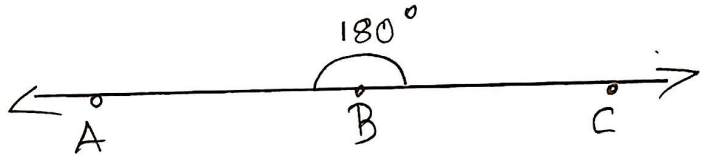
Types of Angles:-

Right Angle



$\angle ABC = 90°$

Straight Angle :-



$\angle ABC = 180°$

Right Angle + Right Angle = Straight Angle

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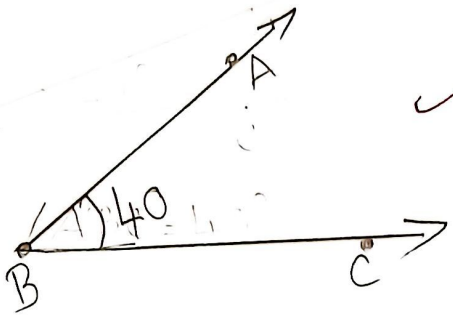
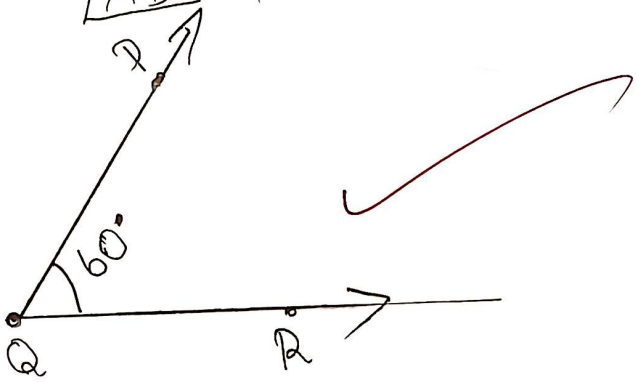
Acute Angle

More than 0° less than 90°

Examples:-



$\angle ABC = 40°$



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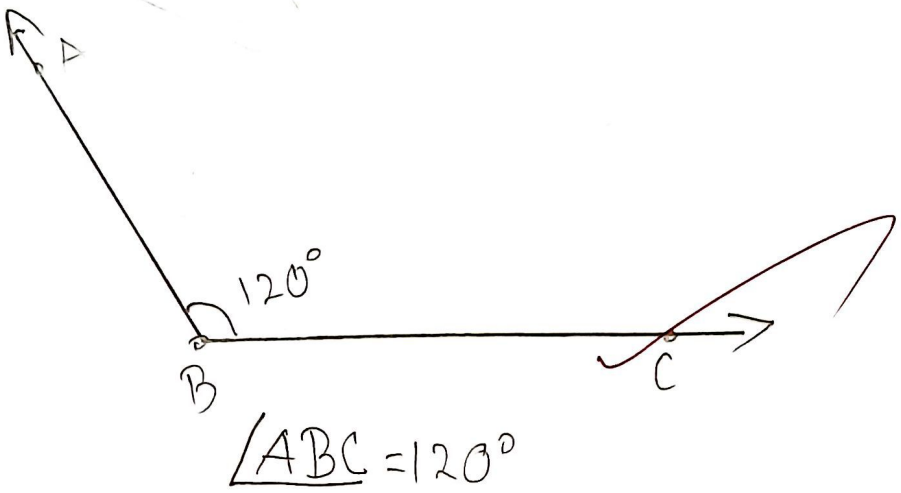
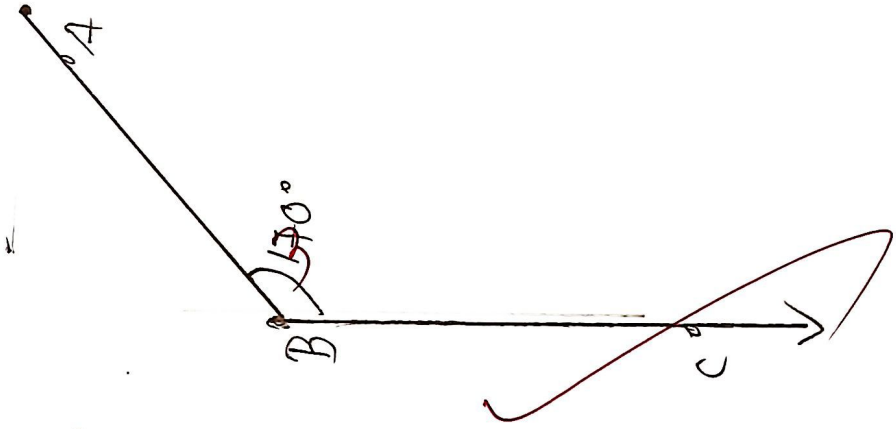
Obtuse Angle:-

More than 90° less than 180°

Examples:-



$\angle ABC = 120°$



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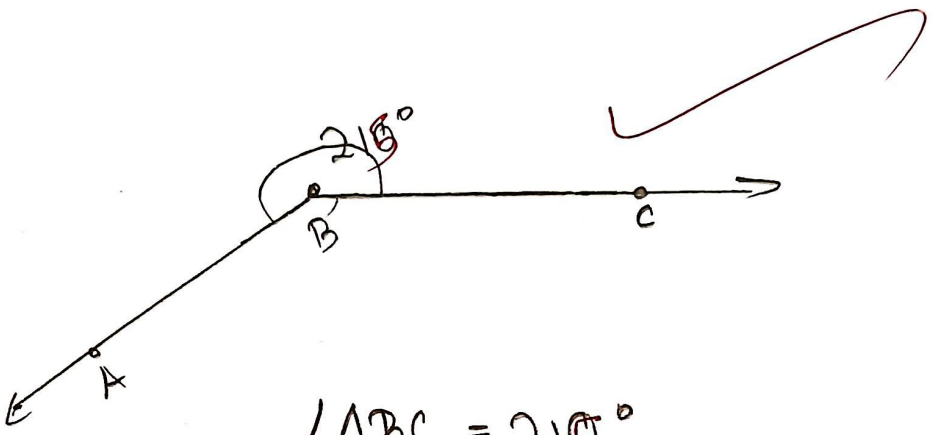
Reflex Angle :-

Angle that are greater than 180° but less than 360°

$215° = 180° + 40° 35'$

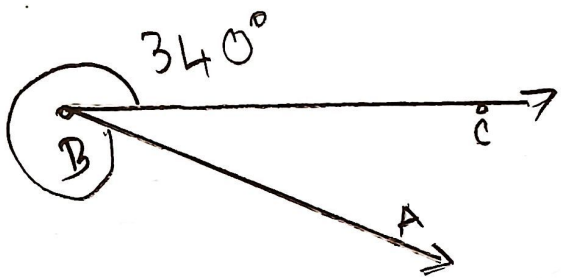
Example :-

(i)



$\angle ABC = 215°$

(ii)



$340° = 180° + 160°$

$\angle ABC = 340°$

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Figure it out (Pg. no: 50)

2) Use a protractor to draw angles having the following degree measures.

a) 110°

b) 40°

Figure it out (Pg. 50)

2. Use a Protractor to draw angles having the following degree measures

a. 110°

b. 40°

(kindly see the book and write the questions to avoid mistakes)

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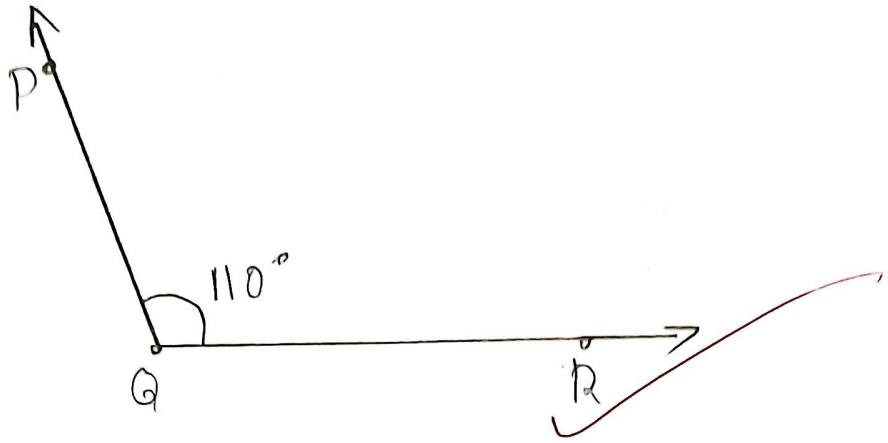
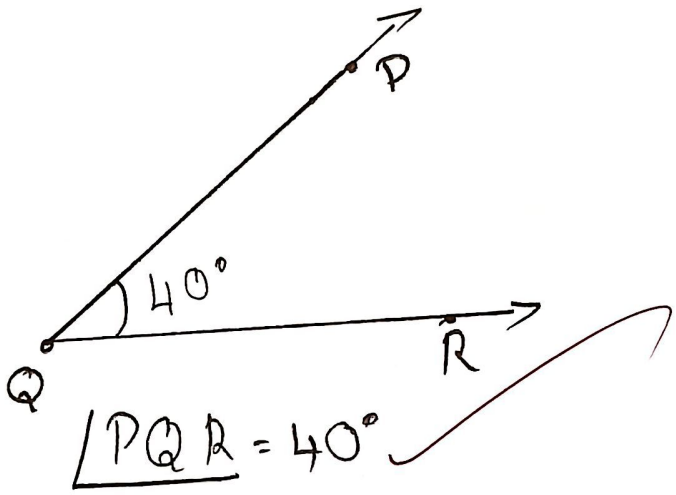
Angle = 110°



$\angle PQR = 110°$

Angle = 40°



$\angle PQR = 40°$

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c) 75°

d) 112°

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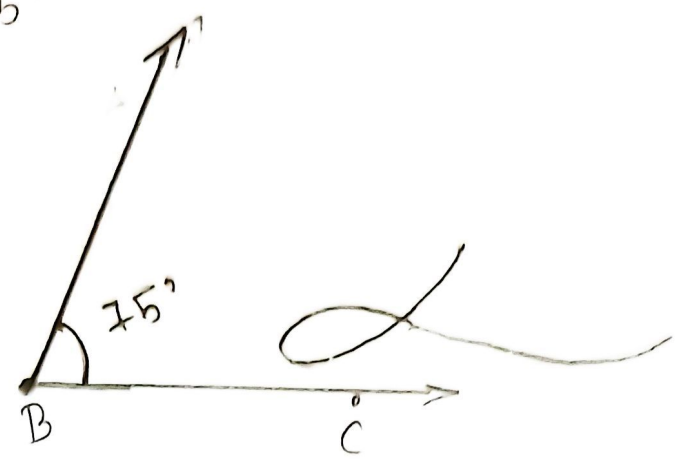
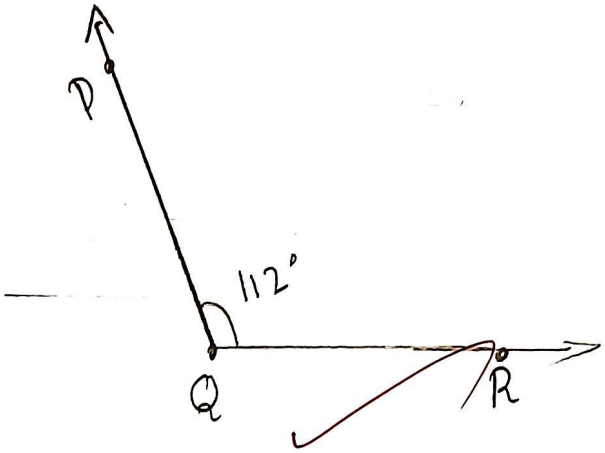
Angle 75°



$\angle ABC = 75°$

Angle : 112°



$\angle PQR = 112°$

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e) 134°

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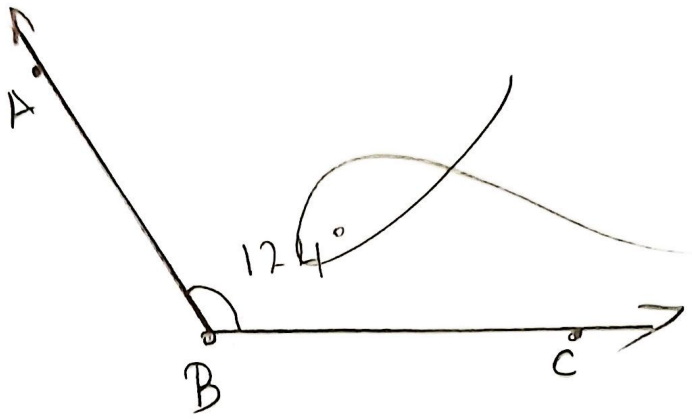
Angle = 124°



$\angle ABC = 124°$

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3. Draw an angle whose degree measure is the same as the angle given below.

$\angle IHJ = 63°$

Also write down the steps you followed to draw the angle.

Construction:-

* Draw a straight line BC using ruler
* Place the protractor's center on point B.
* Align the zero line of the protractor with the line BC.
* Mark a point 63° and name it as A
* Join AB
* $\angle ABC$ is the required angle

Figure it out:-

1)

a) 140°

b) 82°

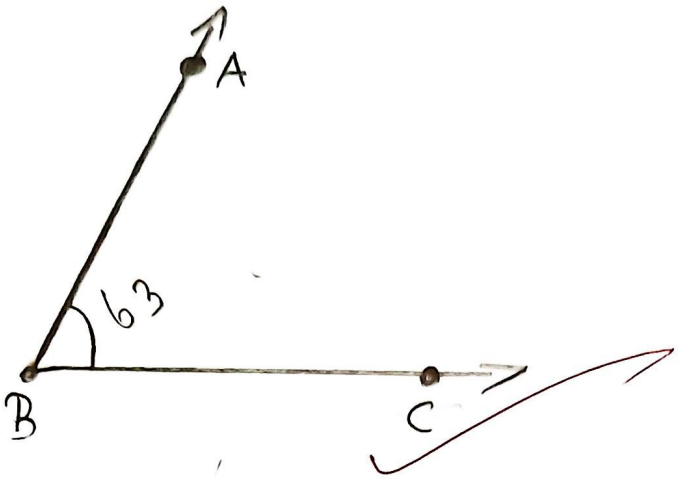
c) 195°

d) 16°

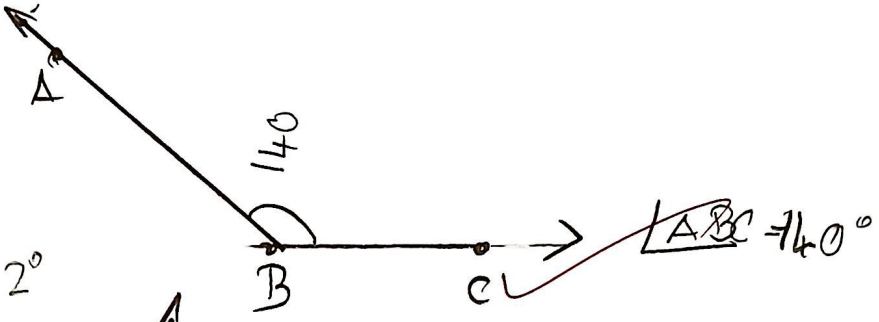
(kindly see the book and write the questions to avoid mistakes)

(have to write on left side page)

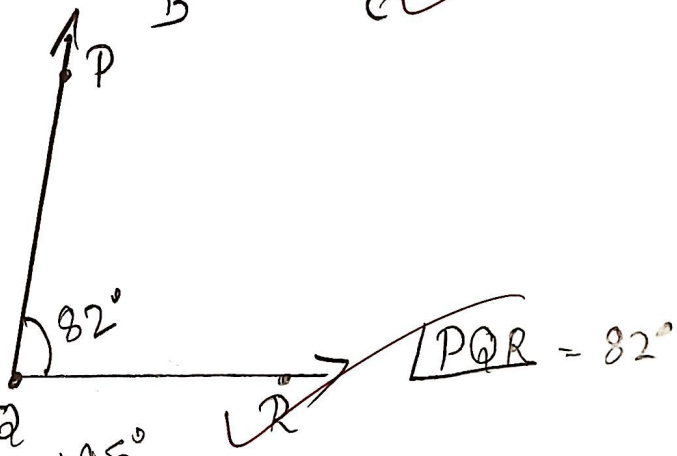
(have to write on right side page)



Angle : 140°



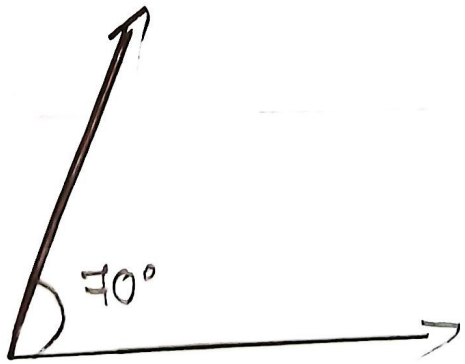
Angle : 82°



Q37 Angle : 195°

180 + 15 = 195°

Angle : 70°



4. Letter M
5. Letter Y

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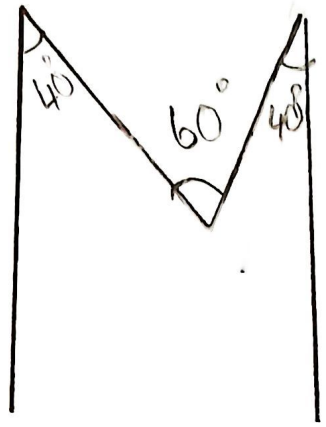
Letter M

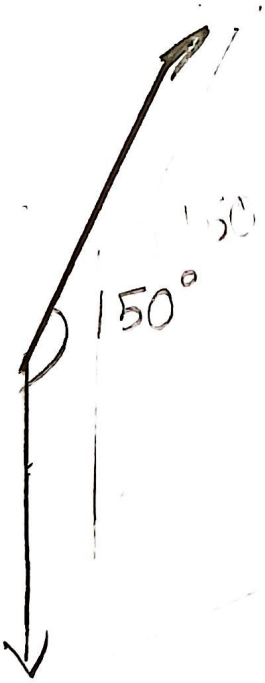
Main Diagram



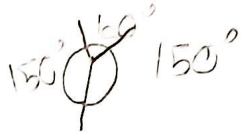
Rough diagram

Letter Y

Main Diagram



Rough diagram



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